(54) METHOD AND DEVICE FOR QUANTIZING VECTOR

(57) Abstract:

PURPOSE: To retrieve a code book vector optimum to an input vector at high speed and high efficiency by providing this vector quantizing method with a specific learning process, a retrieving process and a distortion processing process and suppressing distortion calculation at its minimum.

CONSTITUTION: A network forming part 13 forms a network corresponding to a code book vector and a retrieving order judging part 21 retrieves code book vectors successively from an index having large ignition in an output unit. A distortion calculating part 22 calculates distortion between sequentially selected code books and an input vector X at every dimension and the partial sum of distortion, stores the calculated values in a memory 24 and sets up minimum distortion min. A distortion calculation necessity deciding part 23 calculates only a decided index, and when the partial sum of distortion is larger than the minimum distortion min, a distortion calculation canceling part 25 cancels the succeeding calculation. Consequently distortion calculation can be minimized and an optimum code book vector can rapidly be retrieved.